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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,380	10/03/2003	Wolf-Dietrich Weber	2998P034	3501

8791 7590 12/16/2005

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EXAMINER

PHAN, RAYMOND NGAN

ART UNIT PAPER NUMBER

2111

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/678,380	Applicant(s) WEBER ET AL.	
	Examiner Raymond Phan	Art Unit 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-18, 20 and 22-25 is/are rejected.
- 7) ☒ Claim(s) 14, 19 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06302005</u> . | 6) <input type="checkbox"/> Other: _____ |

Part III DETAILED ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 1-25 are pending.
2. The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 2111.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-13, 15-18, 20, 22-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Application Admitted Prior Arts (hereinafter AAPA) in view of Purcell et al. (US No. 6,970,454).

In regard to claims 1, 7, 11, AAPA disclose a method, comprising:
identifying one or more initiating network resources that present a transaction on a first cycle (see figure 1); configuring segments of the pathways in an interconnect to establish a connection between the initiating network resource and the available target network resource that won the arbitration (see pages 1-2). But AAPA do not specifically disclose filtering out presented transactions from the arbitration process destined to target network resources that are currently not available to

service a transaction; implementing an arbitration process among the remaining presented transactions to select a presented transaction from an initiating network resource to an available target network resource that wins the arbitration; and configuring segments of the pathways in an interconnect in the next cycle to establish a connection between the initiating network resource and the available target network resource that won the arbitration. However Purcell et al. disclose filtering out presented transactions from the arbitration process destined to target network resources that are currently not available to service a transaction (see col. 25, lines 47-61); implementing an arbitration process among the remaining presented transactions to select a presented transaction from an initiating network resource to an available target network resource that wins the arbitration (see col. 25, lines 54-60); and configuring segments of the pathways in an interconnect in the next cycle (see col. 24, lines 23-64) to establish a connection between the initiating network resource and the available target network resource that won the arbitration (see col. 25, lines 36-44). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Purcell et al. within the system of AAPA because it would reduce the delay time in processing the transaction requests.

In regard to claims 2, 8, Purcell et al. further disclose: determining a destination associated with a target network resource for each presented transaction (see col. 25, lines 54-60). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Purcell et al. within the system of AAPA because it would reduce the delay time in processing the transaction requests.

In regard to claims 3, 22, Purcell et al. further disclose: cross-referencing the presented transactions from the one or more initiating network resources with target network resources that are currently not available to service a transaction (see col. 25, lines 27-59). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Purcell et al. within the system of AAPA because it would reduce the delay time in processing the transaction requests.

In regard to claim 4, Purcell et al. further disclose: sending control signals to control flip flops to configure segmentation of the pathways in the interconnect so that the control flip flops store the control information resulting from the arbitration process (see col. 21, lines 53-67). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Purcell et al. within the system of AAPA because it would reduce the delay time in processing the transaction requests.

In regard to claims 5, 9, 13, AAPA further disclose: configuring the segments of the pathways in the interconnect to pass a payload of information from the initiating network resource to the available target network resource while isolating other segments of the pathways in the interconnect not part of the payload of information transfer between the initiator network resource and the available target network resource (see pages 1-2).

In regard to claims 6, 10, AAPA further disclose: transitioning voltage levels on the segments of the pathways in the interconnect to communicate the payload of information to the available target network resource in a cycle after the arbitration results are determined (see pages 1-2).

In regard to claims 11-12, 20, 25, AAPA disclose an interconnect coupled to a plurality of initiator network resources as well as a plurality of target network resources (see figure 1), wherein the interconnect comprises an arbitration controller to arbitrate transactions from the plurality of initiator network resources destined to one or more of the target network resources (see pages 1-2). But AAPA do not specifically disclose a first stage of circuitry to receive incoming transactions from the plurality of initiator network resources; a second stage of circuitry to pass outgoing transactions to the plurality of target network resources connecting to the interconnect wherein the target network resources supply their availability to service a transaction to the arbitration controller, and the arbitration controller to implement an arbitration policy that filters out transactions from an arbitration process those transactions from initiator network resources destined to target network resources that are currently not available to service a transaction. However Purcell et al. disclose a first stage of circuitry to receive incoming transactions from the plurality of initiator network resources (see col. 24, lines 23-64); a second stage of circuitry to pass outgoing transactions to the plurality of target network resources connecting to the interconnect (see col. 24, lines 23-64); wherein the target network resources supply their availability to service a transaction to the arbitration controller, and the arbitration controller to implement an arbitration policy that filters out transactions from an arbitration process those transactions from initiator network resources destined to target network resources that are currently not available to service a transaction (see col. 25, lines 26-59). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Purcell et al.

within the system of AAPA because it would reduce the delay time in processing the transaction requests.

In regard to claims 15, 23, Purcell et al. disclose a processor as an initiator (see figure 2). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Purcell et al. within the system of AAPA because it would reduce the delay time in processing the transaction requests.

In regard to claims 16, 24, Purcell et al. disclose a machine-readable medium having stored thereon information presenting the apparatus of claim 11 (see col. 27, lines 27-61). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Purcell et al. within the system of AAPA because it would reduce the delay time in processing the transaction requests.

In regard to claim 18, AAPA disclose an interconnect coupled to a plurality of initiator network resources as well as a plurality of target network resources (see figure 1), wherein the interconnect comprises: circuitry to receive transactions from the plurality of initiator network resources (see pages 1-2). But AAPA do not specifically disclose wherein the circuitry to receive transactions includes one or more filter units and one or more splitter units to configure segmented pathways in the interconnect; and an arbitration controller to generate control signals for the filter units and the splitter units to configure a connection pathway in the interconnect between a first initiator network resource and a first target network resource, wherein the configured connection pathway to allow an information transfer between the initiator network-resource and the target network-resource while isolating other segments of the pathways in the interconnect not part of the

information transfer between the first initiator network resource and the first target network-resource. However Purcell et al. disclose wherein the circuitry to receive transactions includes one or more filter units and one or more splitter units (i.e. mux) to configure segmented pathways in the interconnect (see col. 20, lines 38-57); and an arbitration controller to generate control signals for the filter units and the splitter units to configure a connection pathway in the interconnect between a first initiator network resource and a first target network resource (see col. 21, lines 53-67), wherein the configured connection pathway to allow an information transfer between the initiator network-resource and the target network-resource while isolating other segments of the pathways in the interconnect not part of the information transfer between the first initiator network resource and the first target network-resource (see col. 25, lines 37-59). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Purcell et al. within the system of AAPA because it would reduce the delay time in processing the transaction requests.

Allowable Subject Matter

6. Claims 14, 19, 21, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is an Examiner's statement of reasons for the indication of allowable subject matter: Claims 14, 19 21 are allowable over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of the said prior arts which teach wherein the first stage of circuitry to route an incoming payload of information to a central point and the second stage of circuitry to route the payload

of information from the central point (claim 14); wherein the circuitry to receive transactions further comprises: a first stage of circuitry to receive incoming transactions from the plurality of initiator network resources and the first stage includes at least one or more of the filter units to configure segmented pathways in the interconnect; and a second stage of circuitry to pass outgoing transactions to target network resources connecting to the interconnect and the first stage includes at least one or more of the splitter units to configure segmented pathways in the interconnect (claim 19); wherein the circuitry to receive transactions further comprises one or more merge units, a first control flip flop coupled to a first splitter unit, and a second control flip flop coupled to a first filter unit (claim 21).

Conclusion

8. Claims 1-13, 15-18, 20, 22-25 are rejected. Claims 14, 19, 21 are objected.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (571) 272-3630. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Primary, Paul Myers can be reached on (571) 272-3639 or via e-mail addressed to paul.myers@uspto.gov. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].


All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 central telephone number is (571) 272-2100.



Raymond Phan
12/12/2005



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SUPERVISORY PATENT EXAMINER
12/12/05